

(r) *Other markings.* Other markings are allowed in areas other than the side wall, provided they are made in low stress areas and are not of a size and depth that will create harmful stress concentrations. Such marks must not conflict with required marks.

(s) *Marking of UN non-refillable pressure receptacles.* Unless otherwise specified in this paragraph, each UN non-refillable pressure receptacle must be clearly and legibly marked as prescribed in paragraph (p) of this section. In addition, permanent stenciling is authorized. Except when stenciled, the marks must be on the shoulder, top end or neck of the pressure receptacle or on a permanently affixed component of the pressure receptacle (*e.g.*, a welded collar).

(1) The marking requirements and sequence listed in paragraphs (p)(1) through (19) of this section are required, except the markings in paragraphs (p)(8), (9), (12) and (18) are not applicable. The required serial number marking in paragraph (p)(14) may be replaced by the batch number.

(2) Each receptacle must be marked with the words “DO NOT REFILL” in letters of at least 5 mm in height.

(3) A non-refillable pressure receptacle, because of its size, may substitute the marking required by this paragraph with a label. Reduction in marking size is authorized only as prescribed in ISO 7225, Gas cylinders—Precautionary labels. (IBR, *see* §171.7 of this subchapter).

(4) Each non-refillable pressure receptacle must also be legibly marked by stenciling the following statement: “Federal law forbids transportation if refilled—penalty up to \$500,000 fine and 5 years in imprisonment (49 U.S.C. 5124).”

(5) No person may mark a non-refillable pressure receptacle as meeting the requirements of this section unless it was manufactured in conformance with this section.

[76 FR 3385, Jan. 19, 2011, as amended at 76 FR 43532, July 20, 2011; 77 FR 60943, Oct. 5, 2012; 78 FR 1096, Jan. 7, 2013]

§ 178.74 Approval of MEGCs.

(a) *Application for design type approval.* (1) Each new MEGC design type must have a design approval certi-

ficate. An owner or manufacturer must apply to an approval agency that is approved by the Associate Administrator in accordance with subpart E of part 107 of this chapter +to obtain approval of a new design. When a series of MEGCs is manufactured without change in the design, the certificate is valid for the entire series. The design approval certificate must refer to the prototype test report, the materials of construction of the manifold, the standards to which the pressure receptacles are made and an approval number. The compliance requirements or test methods applicable to MEGCs as specified in this subpart may be varied when the level of safety is determined to be equivalent to or exceed the requirements of this subchapter and is approved in writing by the Associate Administrator. A design approval may serve for the approval of smaller MEGCs made of materials of the same type and thickness, by the same fabrication techniques and with identical supports, equivalent closures and other appurtenances.

(2) Each application for design approval must be in English and contain the following information:

(i) Two complete copies of all engineering drawings, calculations, and test data necessary to ensure that the design meets the relevant specification.

(ii) The manufacturer’s serial number that will be assigned to each MEGC.

(iii) A statement as to whether the design type has been examined by any approval agency previously and judged unacceptable. Affirmative statements must be documented with the name of the approval agency, reason for non-acceptance, and the nature of modifications made to the design type.

(b) *Actions by the approval agency.* The approval agency must review the application for design type approval, including all drawings and calculations, to ensure that the design of the MEGC meets all requirements of the relevant specification and to determine whether it is complete and conforms to the requirements of this section. An incomplete application will be returned to the applicant with the reasons why the application was returned. If the application is complete and all applicable

requirements of this section are met, the approval agency must prepare a MEGC design approval certificate containing the manufacturer's name and address, results and conclusions of the examination and necessary data for identification of the design type. If the Associate Administrator approves the Design Type Approval Certificate application, the approval agency and the manufacturer must each maintain a copy of the approved drawings, calculations, and test data for at least 20 years.

(c) *Approval agency's responsibilities.* The approval agency is responsible for ensuring that the MEGC conforms to the design type approval. The approval agency must:

(1) Witness all tests required for the approval of the MEGC specified in this section and § 178.75.

(2) Ensure, through appropriate inspection, that each MEGC is fabricated in all respects in conformance with the approved drawings, calculations, and test data.

(3) Determine and ensure that the MEGC is suitable for its intended use and that it conforms to the requirements of this subchapter.

(4) Apply its name, identifying mark or identifying number, and the date the approval was issued, to the metal identification marking plate attached to the MEGC upon successful completion of all requirements of this subpart. Any approvals by the Associate Administrator authorizing design or construction alternatives (Alternate Arrangements) of the MEGC (see paragraph (a) of this section) must be indicated on the metal identification plate as specified in § 178.75(j).

(5) Prepare an approval certificate for each MEGC or, in the case of a series of identical MEGCs manufactured to a single design type, for each series of MEGCs. The approval certificate must include all of the following information:

(i) The information displayed on the metal identification plate required by § 178.75(j);

(ii) The results of the applicable framework test specified in ISO 1496-3 (IBR, see § 171.7 of this subchapter);

(iii) The results of the initial inspection and test specified in paragraph (h) of this section;

(iv) The results of the impact test specified in § 178.75(i)(4);

(v) Certification documents verifying that the cylinders and tubes conform to the applicable standards; and

(vi) A statement that the approval agency certifies the MEGC in accordance with the procedures in this section and that the MEGC is suitable for its intended purpose and meets the requirements of this subchapter. When a series of MEGCs is manufactured without change in the design type, the certificate may be valid for the entire series of MEGCs representing a single design type. The approval number must consist of the distinguishing sign or mark of the country ("USA" for the United States of America) where the approval was granted and a registration number.

(6) Retain on file a copy of each approval certificate for at least 20 years.

(d) *Manufacturers' responsibilities.* The manufacturer is responsible for compliance with the applicable specifications for the design and construction of MEGCs. The manufacturer of a MEGC must:

(1) Comply with all the requirements of the applicable ISO standard specified in § 178.71;

(2) Obtain and use an approval agency to review the design, construction and certification of the MEGC;

(3) Provide a statement in the manufacturers' data report certifying that each MEGC manufactured complies with the relevant specification and all the applicable requirements of this subchapter; and

(4) Retain records for the MEGCs for at least 20 years. When required by the specification, the manufacturer must provide copies of the records to the approval agency, the owner or lessee of the MEGC, and to a representative of DOT, upon request.

(e) *Denial of application for approval.* If the Associate Administrator finds that the MEGC will not be approved for any reason, the Associate Administrator will notify the applicant in writing and provide the reason for the denial. The manufacturer may request

that the Associate Administrator reconsider the decision. The application request must—

(1) Be written in English and filed within 90 days of receipt of the decision;

(2) State in detail any alleged errors of fact and law; and

(3) Enclose any additional information needed to support the request to reconsider.

(f) *Appeal.* (1) A manufacturer whose reconsideration request is denied may appeal to the PHMSA Administrator. The appeal must—

(i) Be in writing and filed within 90 days of receipt of the Associate Administrator's decision on reconsideration;

(ii) State in detail any alleged errors of fact and law;

(iii) Enclose any additional information needed to support the appeal; and

(iv) State in detail the modification of the final decision sought.

(2) The Administrator will grant or deny the relief and inform the appellant in writing of the decision. The Administrator's decision is the final administrative action.

(g) *Modifications to approved MEGCs.*

(1) Prior to modification of any approved MEGC that may affect conformance and safe use, and that may involve a change to the design type or affect its ability to retain the hazardous material in transportation, the MEGC's owner must inform the approval agency that prepared the initial approval certificate for the MEGC or, if the initial approval agency is unavailable, another approval agency, of the nature of the modification and request certification of the modification. The owner must supply the approval agency with all revised drawings, calculations, and test data relative to the intended modification. The MEGC's owner must also provide a statement as to whether the intended modification has been examined and determined to be unacceptable by any approval agency. The written statement must include the name of the approval agency, the reason for non-acceptance, and the nature of changes made to the modification since its original rejection.

(2) The approval agency must review the request for modification. If the approval agency determines that the pro-

posed modification does not conform to the relevant specification, the approval agency must reject the request in accordance with paragraph (d) of this section. If the approval agency determines that the proposed modification conforms fully with the relevant specification, the request is accepted. If modification to an approved MEGC alters any information on the approval certificate, the approval agency must prepare a new approval certificate for the modified MEGC and submit the certificate to the Associate Administrator for approval. After receiving approval from the Associate Administrator, the approval agency must ensure that any necessary changes are made to the metal identification plate. A copy of each newly issued approval certificate must be retained by the approval agency and the MEGC's owner for at least 20 years. The approval agency must perform the following activities:

(i) Retain a set of the approved revised drawings, calculations, and data as specified in § 178.69(b)(4) for at least 20 years;

(ii) Ensure through appropriate inspection that all modifications conform to the revised drawings, calculations, and test data; and

(iii) Determine the extent to which retesting of the modified MEGC is necessary based on the nature of the proposed modification, and ensure that all required retests are satisfactorily performed.

(h) *Termination of Approval Certificate.* (1) The Associate Administrator may terminate an approval issued under this section if he or she determines that—

(i) Because of a change in circumstances, the approval no longer is needed or no longer would be granted if applied for;

(ii) Information upon which the approval was based is fraudulent or substantially erroneous;

(iii) Termination of the approval is necessary to adequately protect against risks to life and property; or

(iv) The MEGC does not meet the specification.

(2) Before an approval is terminated, the Associate Administrator will provide the person—

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(i) Written notice of the facts or conduct believed to warrant the termination;

(ii) An opportunity to submit oral and written evidence; and

(3) An opportunity to demonstrate or achieve compliance with the applicable requirements.

(i) *Imminent Danger*. If the Associate Administrator determines that a certificate of approval must be terminated to preclude a significant and imminent adverse effect on public safety, the Associate Administrator may terminate the certificate immediately. In such circumstances, the opportunities of paragraphs (h)(2) and (3) of this section need not be provided prior to termination of the approval, but must be provided as soon as practicable thereafter.

[71 FR 33890, June 12, 2006]

§ 178.75 Specifications for MEGCs.

(a) *General*. Each MEGC must meet the requirements of this section. In a MEGC that meets the definition of a “container” within the terms of the International Convention for Safe Containers (CSC) must meet the requirements of the CSC as amended and 49 CFR parts 450 through 453, and must have a CSC approval plate.

(b) *Alternate Arrangements*. The technical requirements applicable to MEGCs may be varied when the level of safety is determined to be equivalent to or exceed the requirements of this subchapter. Such an alternate arrangement must be approved in writing by the Associate Administrator. MEGCs approved to an Alternate Arrangement must be marked as required by paragraph (j) of this section.

(c) *Definitions*. The following definitions apply:

Leakproofness test means a test using gas subjecting the pressure receptacles and the service equipment of the MEGC to an effective internal pressure of not less than 20% of the test pressure.

Manifold means an assembly of piping and valves connecting the filling and/or discharge openings of the pressure receptacles.

Maximum permissible gross mass or MPGM means the heaviest load authorized for transport (sum of the tare

mass of the MEGC, service equipment and pressure receptacle).

Service equipment means manifold system (measuring instruments, piping and safety devices).

Shut-off valve means a valve that stops the flow of gas.

Structural equipment means the reinforcing, fastening, protective and stabilizing members external to the pressure receptacles.

(d) *General design and construction requirements*. (1) The MEGC must be capable of being loaded and discharged without the removal of its structural equipment. It must possess stabilizing members external to the pressure receptacles to provide structural integrity for handling and transport. MEGCs must be designed and constructed with supports to provide a secure base during transport and with lifting and tie-down attachments that are adequate for lifting the MEGC including when loaded to its maximum permissible gross mass. The MEGC must be designed to be loaded onto a transport vehicle or vessel and equipped with skids, mountings or accessories to facilitate mechanical handling.

(2) MEGCs must be designed, manufactured and equipped to withstand, without loss of contents, all normal handling and transportation conditions. The design must take into account the effects of dynamic loading and fatigue.

(3) Each pressure receptacle of a MEGC must be of the same design type, seamless steel, and constructed and tested according to one of the following ISO standards:

(i) ISO 9809-1: Gas cylinders—Refillable seamless steel gas cylinders—Design, construction and testing—Part 1: Quenched and tempered steel cylinders with tensile strength less than 1100 MPa. (IBR, see §171.7 of this subchapter);

(ii) ISO 9809-2: Gas cylinders—Refillable seamless steel gas cylinders—Design, construction and testing—Part 2: Quenched and tempered steel cylinders with tensile strength greater than or equal to 1100 MPa. (IBR, see §171.7 of this subchapter);

(iii) ISO 9809-3: Gas cylinders—Refillable seamless steel gas cylinders—Design, construction and testing—Part 3: